

EXHIBIT 1

N.Y. Comp. Codes R. & Regs. tit. 10, § 5-1.1

**COMPILATION OF CODES, RULES AND
REGULATIONS OF THE STATE OF NEW
YORK**

**TITLE 10. DEPARTMENT OF HEALTH
CHAPTER I. STATE SANITARY CODE
PART 5. DRINKING WATER SUPPLIES
SUBPART 5-1. PUBLIC WATER SYSTEMS
GENERAL PROVISIONS.**

Current through amendments included in the New York State Register,
Volume XXXI, Issue 18, dated May 6, 2009.

Section 5-1.1. Definitions

As used in this Subpart, the following words and terms shall have the stated meaning, except as otherwise specifically provided:

(a) Action level means the concentration of copper or lead that when exceeded triggers actions to be taken by a water system.

Copper action level = 1.3 milligrams per liter

Lead action level = 0.015 milligrams per liter

(b) Auxiliary source means a source of water supply which is not normally used but which has been approved for use by the department or other State agencies having jurisdiction, and has been developed for use when the normal source or sources fail to meet the water supply requirements.

(c) Coagulation means a process using coagulants and mixing by which colloidal and suspended material are destabilized and agglomerated into flocs.

(d) Commissioner means the Commissioner of Health of the State of New York.

(e) Community water system (CWS) means a public water system which serves at least five service connections used by year-round residents or regu-

larly serves at least 25 year-round residents.

(f) Comprehensive Performance Evaluation (CPE) is a thorough review and analysis of a treatment plant's performance-based capabilities and associated administrative, operation and maintenance practices. For purposes of compliance with section 5-1.72(c)(2)(iv) of this Subpart, the CPE must consist of at least the following components: assessment of plant performance; evaluation of major unit processes; identification and prioritization of performance limiting factors; assessment of the applicability of comprehensive technical assistance; and preparation of a CPE report.

(g) Contaminant means any physical, chemical, microbiological or radiological substance or matter in water.

(h) Conventional filtration means a series of processes including coagulation, flocculation, sedimentation and filtration.

(i) Corrosion inhibitor means a substance capable of reducing the corrosivity of water toward metal plumbing materials, especially lead and copper, by forming a protective coating on the interior surface of these materials.

(j) CT means the product of the free residual disinfectant concentration (C) in milligrams per liter determined before or at the first customer, and the corresponding disinfectant contact time (T) in minutes, expressed by the formula $(C) \times (T) = CT$. Disinfectant contact time (T), is the time that it takes for water to move from the point of disinfectant application or the previous point of residual disinfectant measurement to a point before or at the point where residual disinfectant concentration (C) is measured.

(k) Designated representative means the health commissioner or health officer of a city of 50,000 population or over, or the health commissioner or health officer of a county or part-county health dis-

N.Y. Comp. Codes R. & Regs. tit. 10, § 5-1.1

trict, the State regional health director, or district director having jurisdiction; a public health director or public health engineer qualified as duly appointed pursuant to Part 11 of this Title; or a county health commissioner, or county health director having the powers and duties prescribed in section 352 of the Public Health Law, or any other individual so designated by the commissioner.

(l) Disinfection station means a facility consisting of one or more points where water is routinely treated with an oxidant for disinfection, odor control or other purposes including the inactivation of pathogenic organisms and excluding treatment on a raw water transmission main.

(m) Distribution point means a sampling point representative of drinking water within the distribution system.

(n) Department means the New York State Department of Health.

(o) Diatomaceous earth filtration means a process resulting in substantial particulate removal which a precoat cake of diatomaceous earth filter media is deposited on a support membrane (septum), and while the water is filtered by passing through the cake on the septum, additional filter media known as body feed is continuously added to the feed water to maintain the permeability of the filter cake.

(p) Direct filtration means a series of processes including coagulation and filtration but excluding sedimentation resulting in substantial particulate removal.

(q) Dose equivalent means the product of the absorbed dose from ionizing radiation and such factors as account for differences in biological effectiveness because of the type of radiation and its distribution in the body as specified by the International Commission on Radiological Units and Measurements (ICRU).

(r) Dwelling unit means one or more rooms with provisions for living, sanitary and sleeping facilities

arranged for the use of one family.

(s) Effective corrosion inhibitor residual means a concentration sufficient to form a protective coating on the interior walls of a pipe.

(t) Emergency source means a source of water supply which is not the regular source or auxiliary source and which is developed during an emergency for temporary use.

(u) Enhanced coagulation means the addition of sufficient coagulant for improved removal of disinfection byproduct precursors by conventional filtration treatment.

(v) Entry point means a representative sampling location after the last point of treatment but before the first consumer connection.

(w) Filter profile is a graphical representation of individual filter performance, based on continuous turbidity measurements or total particle counts versus time for an entire filter run, from startup to backwash, that includes an assessment of filter performance while another filter is being backwashed.

(x) Filtration means a process for removing particulate matter from water by passage through porous material.

(y) First draw tap sample for lead and copper means a one liter sample of water collected from a cold water tap after the water has stood in the plumbing system for at least six hours and is collected without flushing the tap.

(z) Flocculation means a process to enhance agglomeration or collection of smaller floc particles into larger, more easily settleable particles through gentle stirring by hydraulic or mechanical mechanisms.

(aa) GAC10 means granular activated carbon filter beds with an empty-bed contact time of 10 minutes based on average daily flow and a carbon reactivation or replacement frequency of every 180 days,

N.Y. Comp. Codes R. & Regs. tit. 10, § 5-1.1

and is the Best Available Technology for compliance with total trihalomethanes (TTHM) and haloacetic acids (five) (HAA5) maximum contaminant levels (MCLs).

(ab) Gross alpha particle activity means the total radioactivity because of alpha particle emission as inferred from measurements on a dry sample.

(ac) Gross beta particle activity means the total radioactivity because of beta particle emission as inferred from measurements on a dry sample.

(ad) Ground water directly influenced by surface water means any water beneath the surface of the ground which exhibits significant and rapid shifts in water characteristics such as turbidity, temperature, conductivity or pH which closely correlates to climatological or surface water conditions and/or which contains microorganisms, algae, large diameter (three microns or greater) pathogens or insect parts of a surface water origin.

(ae) Ground water source means a source of water supply taken from a ground water aquifer and developed in accordance with section 5-1.22 of this Subpart, but shall not include an admixture of surface water or water exposed to the ground surface.

(af) Haloacetic acids (five) (HAA5) mean the sum of the concentrations in milligrams per liter of five specific haloacetic acid compounds, rounded to two significant figures after addition. The five haloacetic acids that comprise the HAA5 are monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid.

(ag) Large water system means a water system that serves more than 50,000 persons.

(ah) Lead service line means a service line made of lead which connects the water main to the building inlet and any lead appurtenances connected to the lead service line.

(ai) Lead service line sample means a one liter sample for lead, collected after the water has stood

in the service line for at least six hours. The sample must be collected directly from a tap on the service line or by calculating and wasting the amount of water in the plumbing system from the sampling point to the service line. At a single family structure, the sample may be collected by running the water until there is a significant change in water temperature.

(aj) Man-made beta particle and photon emitters means all radionuclides emitting beta particles and/or photons, except the daughter products of thorium-232, uranium-235 and uranium-238, listed in Maximum Permissible Body Burdens and Maximum Permissible Concentration of Radionuclides in Air or Water for Occupational Exposure, National Bureau of Standards Handbook 69, as amended August 1963, U.S. Department of Commerce. Copies of this publication are available from N.C.R.P. Publications, 7910 Woodmont Avenue, Bethesda, MD, and a copy is available for inspection and copying at the offices of the records access officer of the Department of Health, Corning Tower, Empire State Plaza, Albany, NY 12237.

(ak) Maximum contaminant level (MCL) means the maximum permissible level of a contaminant in water which is delivered to any user of a public water system. For entry point turbidity and inorganic chemicals listed in section 5-1.52, tables 1 and 2, of this Subpart, the maximum permissible level is measured at the point of entry to the distribution system. For organic chemicals with MCLs listed in section 5-1.52, table 3, of this Subpart, the MCL is measured at the individual sources, unless otherwise specified by the State. Substances added to the water by the user, and limited to the premises of the user, are excluded from this definition.

(al) Maximum residual disinfectant level (MRDL) means a level of disinfectant measured at a consumer's tap, above which the possibility of unacceptable health effects exists.

(am) Maximum total trihalomethane potential (MTP) means the maximum concentration of total

N.Y. Comp. Codes R. & Regs. tit. 10, § 5-1.1

trihalomethane produced in a given water containing a free chlorine residual after seven days at a temperature of 25 degrees Celsius or above.

(an) Medium water system means water system that serves greater than 3,300 and less than or equal to 50,000 persons.

(ao) Noncommunity water system (NCWS) means a public water system that is not a community water system.

(ap) Nontransient noncommunity water system (NTNC) means a public water system that is not a community water system but is a subset of a noncommunity water system that regularly serves at least 25 of the same people, four hours or more per day, for four or more days per week, for 26 or more weeks per year.

(aq) Optimal corrosion control treatment means the corrosion control treatment that reduces the lead and copper concentrations at users' taps to the lowest reasonably achievable level while insuring that the treatment does not cause the water system to violate Part 5 of the State Sanitary Code or cause adverse health or operational effects.

(ar) Person means an individual, corporation, company, association, partnership, State agency, municipality including a county, or Federal agency.

(as) Picocurie means that quantity of radioactive material producing 2.22 nuclear transformations per minute.

(at) Potable water means a water which meets the requirements established by this Subpart.

(au) Point of use means the free-flowing outlet of the ultimate user of a public water system.

(av) Principal organic contaminant (POC) means any organic chemical compound belonging to the following classes, except for trichloromethane (chloroform), dibromochloromethane, bromodichloromethane, tribromomethane (bromoform) and

any other organic contaminant with a specific MCL listed in section 5-1.52, table 3 of this Subpart:

(1) Halogenated alkane: Compound containing carbon (C), hydrogen (H) and halogen (X) where X = fluorine (F), chlorine (Cl), bromine (Br) and/or iodine (I), having the general formula $C(n)H(y)X(z)$, where $y + z = 2n + 2$; n, y and z are integer variables; n and z are equal to or greater than one and y is equal to or greater than zero;

(2) Halogenated ether: Compound containing carbon (C), hydrogen (H), oxygen (O) and halogen X (where X = F, Cl, Br and/or I) having the general formula $C(n)H(y)X(z)O$, where $y + z = 2n + 2$; the oxygen is bonded to two carbons; n, y and z are integer variables; n is equal to or greater than two, y is equal to or greater than zero and z is equal to or greater than one;

(3) Halobenzenes and substituted halobenzenes: Derivatives of benzene which have at least one halogen atom attached to the ring and which may or may not have straight or branched chain hydrocarbon, nitrogen or oxygen substituents;

(4) Benzene and alkyl- or nitrogen-substituted benzenes: Benzene or a derivative of benzene which has either an alkyl- and/or a nitrogen-substituent;

(5) Substituted, unsaturated hydrocarbons: A straight or branched chain unsaturated hydrocarbon compound containing one of the following: halogen, aldehyde, nitrile, amide; and

(6) Halogenated nonaromatic cyclic hydrocarbons: A nonaromatic cyclic compound containing a halogen.

(aw) Public health hazard means an existing or imminent condition which can be responsible for or cause illness, injury or death and for which immediate corrective or remedial action is required. Public

N.Y. Comp. Codes R. & Regs. tit. 10, § 5-1.1

health hazards include, but are not limited to, the following:

- (1) an *Escherichia coli* (*E. coli*) MCL violation, or failure to test for *E. coli* after any repeat sample tests positive for coliform;
- (2) a nitrate/nitrite MCL violation, of failure to take a confirmation sample within 24 hours for nitrate or nitrite after an initial sample exceeds the MCL;
- (3) an acute MRDL violation for chlorine dioxide as specified in section 5-1.52 table 3A of this Subpart, or failure to take the required samples in the distribution system the day after the MRDL is exceeded at the entry point as specified in section 5-1.52 table 15A of this Subpart;
- (4) turbidity violations or exceedances specified in section 5-1.78(d)(3) of this Subpart and determined by the State to present an existing or imminent condition which can be responsible for or cause illness, injury or death and for which immediate corrective or remedial action is required;
- (5) use of an unapproved or contaminated water supply source;
- (6) insufficient quantity of water to meet drinking or sanitary demands;
- (7) hazardous or toxic chemical contamination;
- (8) disinfection which is inadequate to destroy harmful microorganisms or to maintain a specified chlorine residual;
- (9) disruption of water service of four hours or more, determined by the State to present an existing or imminent condition which can be responsible for or cause illness, injury or death and for which immediate corrective or remedial action is required;

(10) cross-connections of sufficient hazard to adversely affect the health of a water consumer; and

(11) any other conditions, including a water-borne disease outbreak, determined to be a public health hazard by the commissioner.

(ax) Public notification means disseminating information about a problem with a public water system in a form and manner consistent with section 5-1.78 of this Subpart.

(ay) Public water system means a community, non-community or nontransient noncommunity water system which provides water to the public for human consumption through pipes or other constructed conveyances, if such system has at least five service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Such term includes:

(1) collection, treatment, storage and distribution facilities under control of the supplier of water of such system and used with such system; and

(2) collection or pretreatment storage facilities not under such control which are used with such system.

(az) Raw water means water immediately before the first or only point of disinfection or other treatment.

(ba) Regular source means a source of water supply which is normally used and is approved by the department and other State agencies having jurisdiction.

(bb) Rem means the unit dose equivalent from ionizing radiation to the total body or any internal organ or organ system.

(bc) Millirem (mrem) means 0.001 of a rem.

(bd) Reporting period means a time period desig-

N.Y. Comp. Codes R. & Regs. tit. 10, § 5-1.1

nated by the State for determining maximum contaminant level compliance.

(be) Sedimentation means a process for removal of solids before filtration by gravity or separation.

(bf) Service connection means the pertinent pipes, valves and fittings that connect a distribution system to a consumer's facility.

(bg) Single family structure means a building constructed as a single-family residence that is currently used as either a residence or a place of business.

(bh) Slow sand filtration means a process involving passage of raw water through a bed of sand at low velocity resulting in particulate removal by physical or biological mechanisms.

(bi) Small water system means a water system that serves 3,300 or fewer persons.

(bj) Source of water supply means any ground water aquifer or watercourse from which water is taken either periodically or continuously for drinking, culinary or food-processing purposes, or which has been designated for present or future use as a source of water supply for domestic or municipal purposes.

(bk) State means the State Commissioner of Health, or his designated representative.

(bl) State notification means notifying the State by telephone, facsimile (FAX) copy, e-mail or other means about the existence or potential existence of a public health hazard, or the existence of any other violation or situation that may pose a risk to public health.

(bm) Supplier of water means any person who owns or operates a public water system.

(bn) Surface water means all water open to the atmosphere and subject to surface runoff.

(bo) SUVA means the UV absorption at 254 nano-

meters (measured in 1/meters) divided by the dissolved organic carbon concentration (measured in mg/L). SUVA is an indicator of the humic content of water and the ability of the water to be treated for the removal of disinfection byproduct precursors.

(bp) Tier 1 notification means the category for public notifications that are required within 24 hours of learning of a public health hazard. Section 5-1.78(c) of this Subpart lists the specific requirements for Tier 1 notifications.

(bq) Tier 2 notification means the category for public notifications that are required within 30 days of learning of a violation or situation with the potential to have serious adverse effects on human health after long term exposure, such as most MCL, MRDL and treatment technique violations that are not public health hazards. Section 5-1.52 table 13 of this Subpart lists violations and situations that require Tier 2 notification; section 5-1.78(d) of this Subpart lists the specific requirements for Tier 2 notifications.

(br) Tier 3 notification means the category for public notifications that are required within one year (30 days for transient noncommunity water systems) of learning of a less serious violation or situation that does not require a Tier 1 or Tier 2 notification, such as most monitoring violations. Section 5-1.52 table 13 of this Subpart lists violations and situations that require Tier 3 notification; section 5-1.78(e) of this Subpart lists the specific requirements for Tier 3 notifications.

(bs) Total Organic Carbon (TOC) means total organic carbon in mg/L, measured by converting organic carbon to carbon dioxide, rounded to two significant figures.

(bt) Total trihalomethane (TTHM) means the sum of the concentration of trichloromethane (chloroform), dibromochloromethane, bromodichloromethane and tribromomethane (bromoform).

N.Y. Comp. Codes R. & Regs. tit. 10, § 5-1.1

(bu) Transient noncommunity water system (TNC) means a noncommunity water system that does not regularly serve at least 25 of the same people over six months per year.

(bv) Unspecified organic contaminant (UOC) means any organic chemical compound not otherwise specified in this Subpart.

(bw) Virus means a virus of fecal origin which is infectious to humans by waterborne transmission.

(bx) Violation means failure to comply with or conform to the provisions of this Subpart.

(by) Waterborne disease outbreak means the occurrence of acute infectious illness epidemiologically associated with the ingestion of water from a public water system.

(bz) Watercourse means any surface water listed in 6 NYCRR, Chapter 10.

(ca) Water supply emergency plan means a plan approved by the State and filed with the State at such location as specified by the commissioner. The plan shall address the actions to be taken by a water supplier to anticipate water supply emergencies and the steps to be taken to ensure the delivery of potable water during a water supply emergency.

(cb) Water treatment plant means any plant or equipment which, through the addition of chemicals or through aeration, ion exchange, demineralization, coagulation, sedimentation or filtration, or through any other means or combinations of treatment, shall change the physical, chemical, radiological or microbiological quality of water.

CREDIT(S)

Sec. filed Aug. 3, 1972; repealed, new filed April 4, 1977; ams. filed: June 24, 1981; Nov. 5, 1984; April 6, 1987; Nov. 7, 1988; Dec. 29, 1989; March 19, 1991 as emergency measure, expired 90 days after filing; June 18, 1991; Feb. 19, 1992; Dec. 15, 1992 eff; Dec. 16, 1992; April 30, 1998 eff. May 27, 1998; April 6, 2001 eff. April 25, 2001; May

26, 2004 eff. May 26, 2004.

<General Materials (GM) - References, Annotations, or Tables>

10 NYCRR 5-1.1, 10 NY ADC 5-1.1

10 NY ADC 5-1.1

END OF DOCUMENT